# AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED NATURAL GAS PIPELINE LOCATION TIE-IN IN ORANGE COUNTY, TEXAS

By

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# AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED NATURAL GAS PIPELINE LOCATION TIE-IN IN ORANGE COUNTY, TEXAS

BVRA Project Number 01-17

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## ABSTRACT

An archaeological investigation of approximately 1000 feet of a proposed 22,000 foot natural gas pipeline in southeastern Orange County, Texas was performed by Brazos Valley Research Associates of Bryan, Texas in August 2001. No archaeological sites were found in the project area, and it is recommended that construction be allowed to proceed as planned.

## ACKNOWLEDGMENTS

Brazos Valley Research Associates is appreciative of the assistance provided by the following individuals. Stephen M. Swetish of CSC Engineering and Environmental Consultants, Inc. in Bryan, Texas provided maps and served as our link to Duke Energy Field Services, Inc. Mark DeCardova of Duke Energy visited the project area and instructed the field crew where the survey should be conducted. The Principal Investigator is grateful to the Project Archaeologist (James E. Warren) and the field crew (Arthur Romine and Bobby Jemison) for their assistance during the survey. William A. Martin at the Texas Historical Commission, Archeology Division, served as the reviewer for this project, and his input was valuable to the successful outcome of this investigation. Adrianne Mraz, Research Assistant, at the Texas Archeological Research Laboratory, assisted the Principal Investigator with the records check for previously recorded sites in and near the project area. Lili Lyddon prepared the figures in this report.

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## INTRODUCTION

Duke Energy plans to install a 10" natural gas pipeline along an approximate 22,000 foot route (25 acres) in southeastern Orange County, Texas (Figure 1). Following a conversation between Stephen M. Swetish at CSC Engineering and Environmental Services Consultants and William A. Martin at the Texas Historical Commission, Archeology Division, it was decided that an archaeology survey would be necessary for a small segment (1000 feet) of the proposed pipeline route referred to as Section E. The remainder of the route was either disturbed or viewed as being a low probability area for significant archaeological sites. The project area is depicted on the 7.5' topographic quadrangle, Mauriceville (Figure 2).

When a Notice-of-Intent (NOI) was submitted by CSC Engineering and Environmental Consultants, Inc., the proposed pipeline was believed to follow a different route to the south of and parallel to Little Cypress Bayou. This area was viewed as a potential setting for the presence of significant archaeological sites. However, when the field crew arrived they were shown a route by Mr. DeCardova that crossed the bayou from north to south and traveled to the south away from the creek. This is a much less likely area for archaeological sites.

The area surveyed begins at the north side of Little Cypress Bayou and a modern canal, constructed to prevent flooding, and proceeds to the south to a point where it turns to the west to end at a proposed meter pad adjacent to an existing separator pad. The maximum width of the pipeline route will be 50 feet; however, the actual ground disturbance or permanent easement will only affect two feet; the remaining 48 feet is a temporary work area. The projected depth along the pipeline route is four feet. A portion of this line will be bored beneath the bayou. All natural vegetation and soils will be left in place during this directional boring event in order to minimize the impact to the area.

CSC Engineering and Environmental Consultants, Inc. is the environmental coordinator for this project, providing data relating to endangered species, wetlands, and archaeological potential of the project area to Duke Energy.

Adrianne Mraz, Research Assistant at the Texas Archeological Research Laboratory (TARL) in Austin, Texas was contacted regarding the presence of previously recorded sites in the project area. After reviewing the Mauriceville topographic quadrangle, she stated that no archaeological sites have been recorded at TARL in the project area. There is no evidence that a previous archaeological investigation has been done in or around the project area.

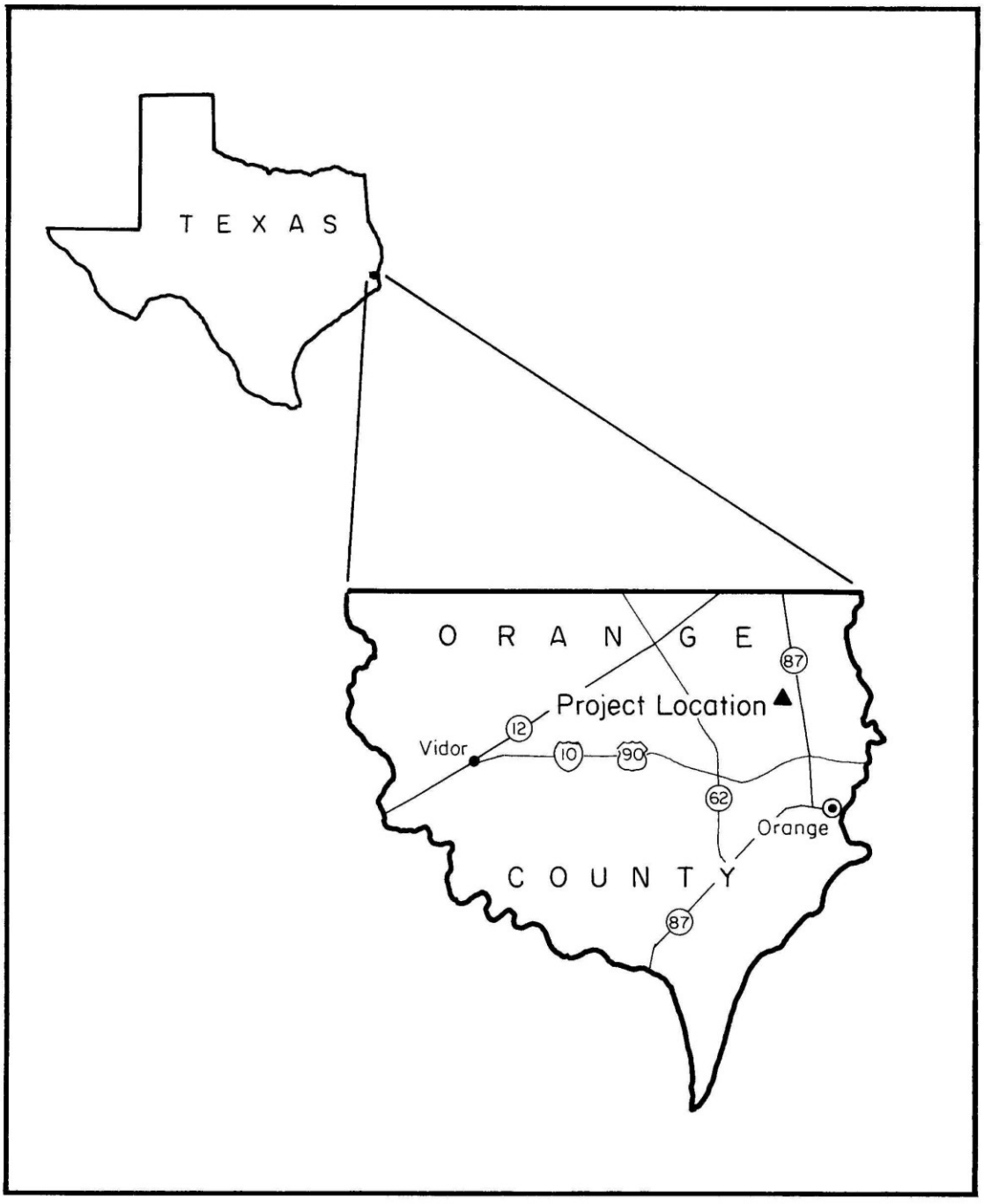


Figure 1. General Location Map

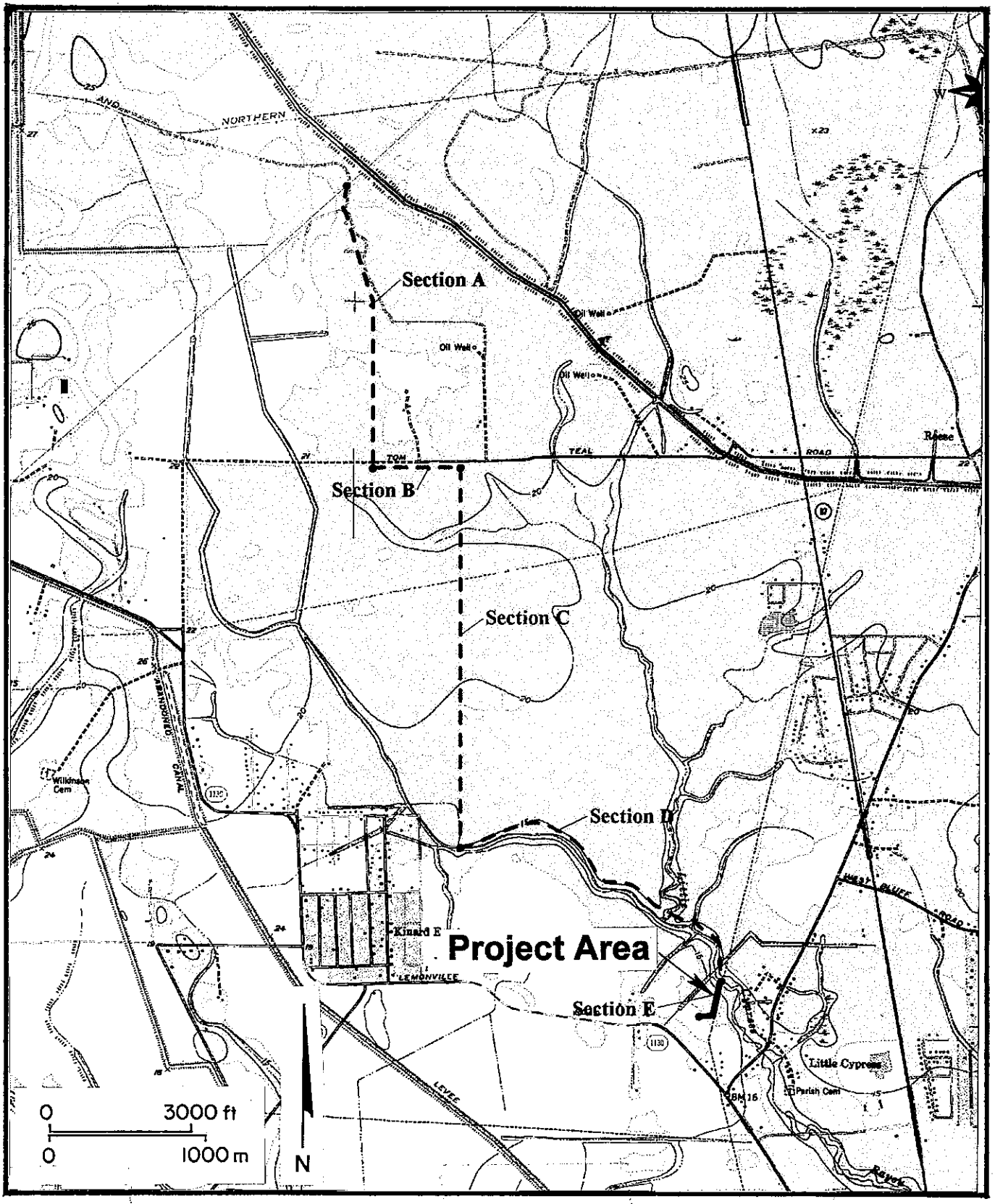


Figure 2. Project Area on Topographic Map Mauriceville

Overall, the project area is located in a region known to contain significant archaeological sites. Because of this archaeological potential, a survey by professional archaeologists was requested by the Texas Historical Commission. Therefore, BVRA was retained by CSC Engineering and Environmental Consultants, Inc. of Bryan, Texas to examine the proposed pipeline route for the presence of significant archaeological sites. The project number assigned by BVRA is 01-17. The field survey was conducted on August 24, 2001.

## ARCHAEOLOGICAL BACKGROUND

Early attempts at locating archaeological sites in the area were conducted by pioneer archaeologists G. E. Arnold and A. T. Jackson (1940) of the University of Texas. They travelled about the state and recorded sites, many of which were considered significant and later revisited by professional archaeologists. Arnold, for example, is credited with recording over 200 sites in the general area that includes several East Texas counties.

One of the first major professional archaeological studies performed in the area was the Toledo Bend Reservoir survey in adjacent Newton County (which also includes other Texas counties and two Louisiana parishes). Several investigators played a part in this endeavor. They are Scurlock and Davis (1962), Scurlock (1964), McClurkan, Field and Woodall (1966), Woodall (1969), Jensen (1968), Benham, Miller, and Sciscenti (1973). These projects included both survey and excavation. In general, the prehistoric sites in the Toledo Bend area are indicative of an Archaic occupation of the area at a early time with small campsites scattered up and down the river and main tributaries followed by a Late Prehistoric occupation, presumably Caddo or Caddo-influenced peoples). Most of the sites for both the Archaic and Late Prehistoric periods are situated on rises or terraces above the floodplain of the Sabine River (Skinner and Cliff 1973:10).

Much of what is currently known concerning the archaeology of Orange County has been derived from general studies involving broad areas such as that performed by Lawrence Aten in his excellent book *Indians of the Upper Texas Coast (Aten 1983)* and by specific studies usually concentrating on the Sabine River area (McGuff, Paul R., and Wayne R. Roberson 1974). Testing and mitigation of sites in the county appear to be rare; however, Espey, Huston & Associates, Inc. carried out one such study at 41OR58 in 1991 (Rogers et al.). It was recommended that this site be added to the National Register of Historic Places (Rogers et al. 1991:55).

A review of the *Archeological Bibliography for the Southeastern Region of Texas* (Moore 1989) revealed no major projects in Orange County prior to the 1991 investigation by Rogers et al. (1991). Professional studies are typically small area projects, many of which failed to locate sites. A check of the *Abstracts in Texas Contract Archeology* series published by the Texas Historical Commission for the years 1987-1992 produced only three additional projects, all small area surveys with no sites recorded except for a possible historic cemetery on the Lamar University, Orange campus.

## METHODS

Prior to entering the field, a records check was conducted for BVRA by Adrianne Mraz, Research Assistant at TARL. Ms. Mraz checked the site files for previously recorded sites in the project area. In addition, information pertaining to previous archaeological work in the region was obtained from the library at BVRA. The field survey crew relied on verbal instruction from Mark DeCardova of Duke Energy and the 7.5' topographic map Mauriceville. The method utilized to assess the pipeline route consisted of shovel tests and a surface inspection of exposed areas. The field survey crew walked the entire route and dug shovel tests at 100 foot intervals. The testing started at the south side of the bayou where, according to Mr. DeCardova, the area will be disturbed. No disturbance will occur on the creek banks due to boring. Since the project area does not exceed 30 feet (9.15 meters) in width, parallel survey transects were not necessary. A small raised area containing deeper soils was identified (Figure 3), and two tests were dug at a closer interval (25 feet). Because of the presence of large trees in this area it was believed to contain intact soils. The project area depicting the approximate location of all shovel tests appears as Figure 3. No soil survey was available for Orange County at the time of this survey.

The survey crew began at station number 226+00 on the south side of Little Cypress Bayou and worked in a southwesterly direction. Between 226+00 and the Point-of-Intersection the route passes through an area that has been disturbed through the construction of a power line right-of-way. At the time of the survey, a three-pole power line was in place and paralleled this part of the project area. At the Point-of-Intersection, the route turns to the west and passes through a mixed hardwood forest. No creeks or other drainages were crossed along the entire route surveyed.

All earth excavated through shovel testing was screened using 1/4" hardware cloth, and a shovel test log was kept (Appendix I). Profiles of the shovel tests were sketched in the field, and the tests were drawn on a project area map (Figure 3). In all, nine tests were excavated.

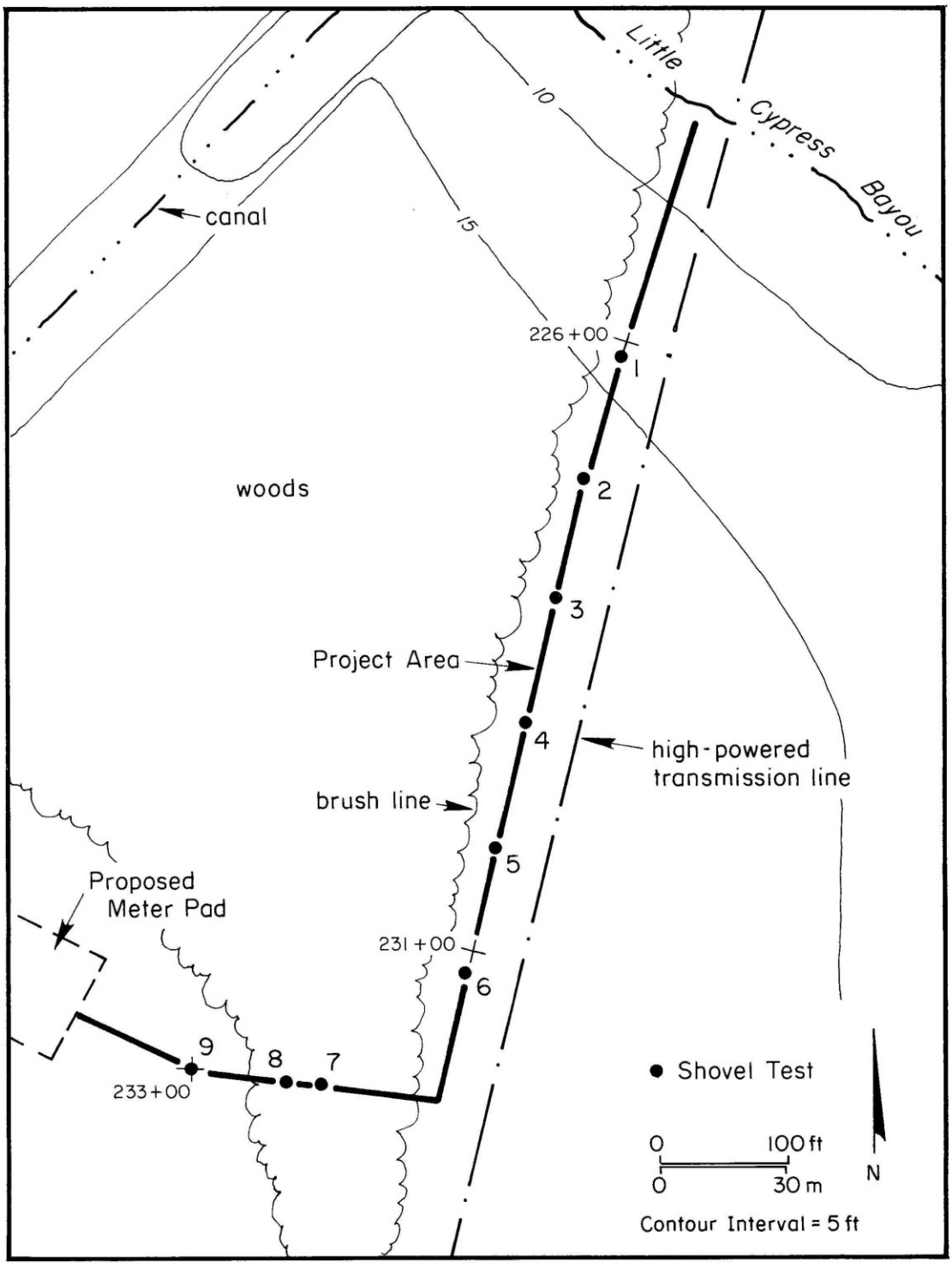


Figure 3. Project Area Map Depicting Shovel Test Locations

## RESULTS AND RECOMMENDATIONS

The records check at TARL revealed no previously recorded archaeological sites in the project area. No cultural materials were found in either of the nine shovel tests or observed in eroded or pushed areas along the disturbed portion of the right-of-way. It is believed that this area is too far from any creeks or other water sources to be considered anything but a low probability area for the presence of significant archaeological sites.

BVRA recommends that Duke Energy be allowed to proceed with construction of the pipeline as planned. It is the opinion of BVRA that no significant archaeological sites were missed during the examination of the 1000 foot proposed pipeline route. Should, however, cultural materials be exposed during the construction of the pipeline, all work should cease until the situation can be evaluated by the Texas Historical Commission in consultation with Duke Energy Field Services, Inc. and BVRA.

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APPENDIX I: SHOVEL TEST LOG

| Test | Station Number | Depth | Description |
|---|---|---|---|
| 01 | 226+00 | 15 cm | tan loamy clay over a gray clay |
| 02 | 227+00 | 10 cm | tan loamy clay over a yellow clay |
| 03 | 228+00 | 15 cm | tan loamy clay over a yellow clay |
| 04 | 229+00 | 20 cm | tan loamy clay over a red clay |
| 05 | 230+00 | 30 cm | tan loamy clay over a yellow clay |
| 06 | 231+00 | 20 cm | tan loamy clay over a yellow clay |
| 07 | 232+00 | 60 cm | dark gray loamy clay over a yellow clay |
| 08 | n/a | 70 cm | dark gray loamy clay over a yellow clay |
| 09 | 233+00 | 30 cm | tan loamy clay over a yellow clay |